



## *Department of Transportation*

*State of Georgia*

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February 12, 2008

Thank you for attending the public information open house for Project No. EDS-500(5), Bartow County; the proposed US 411 Connector. In this handout package you will find a project description, which reflects some recent changes being considered to reduce the overall project cost, a location map and comment card.

As you enter the room, you will notice displays of the proposed project. Department of Transportation (DOT) representatives, who can be identified by the nametags they are wearing, are available to discuss the project and answer your questions. Please take this opportunity to discuss the project with a DOT representative. There will be no formal presentation.

A court reporter is available for those persons who would like to make a verbal statement about the project. You may also complete a comment form and deposit it into the box provided here or send in written comments about the project until February 22, 2008. Written comments should be sent to Mr. Glenn Bowman, P.E., State Environmental/Location Engineer, Georgia Department of Transportation, 3993 Aviation Circle, Atlanta, Georgia 30336-1593. Comments can also be made via the web at [www.dot.state.ga.us](http://www.dot.state.ga.us) by clicking on Public Outreach from the list of Featured Links or by leaving a message on the project hot line voice mail (678-333-0648). All comments will be made a part of the project record. We hope you will take advantage of one of these commenting opportunities to let GDOT know your view of the project and the modified Preferred Alternative.

The displays will be available for review for 10 days after the open house at the Georgia Department of Transportation District Six Office, located at 500 Joe Frank Harris Parkway, Cartersville, GA 30120.

Again, thank you for attending this open house and for giving us your comments.

Sincerely,

A handwritten signature in black ink, appearing to read "James B. Buchan".

James B. Buchan, P.E.  
State Urban Design Engineer

JBB:jm/gth  
Attachments

**US 411 Connector  
Project EDS-500(5),  
P.I. Number 661950, Bartow County**

**Summary of Project Changes**

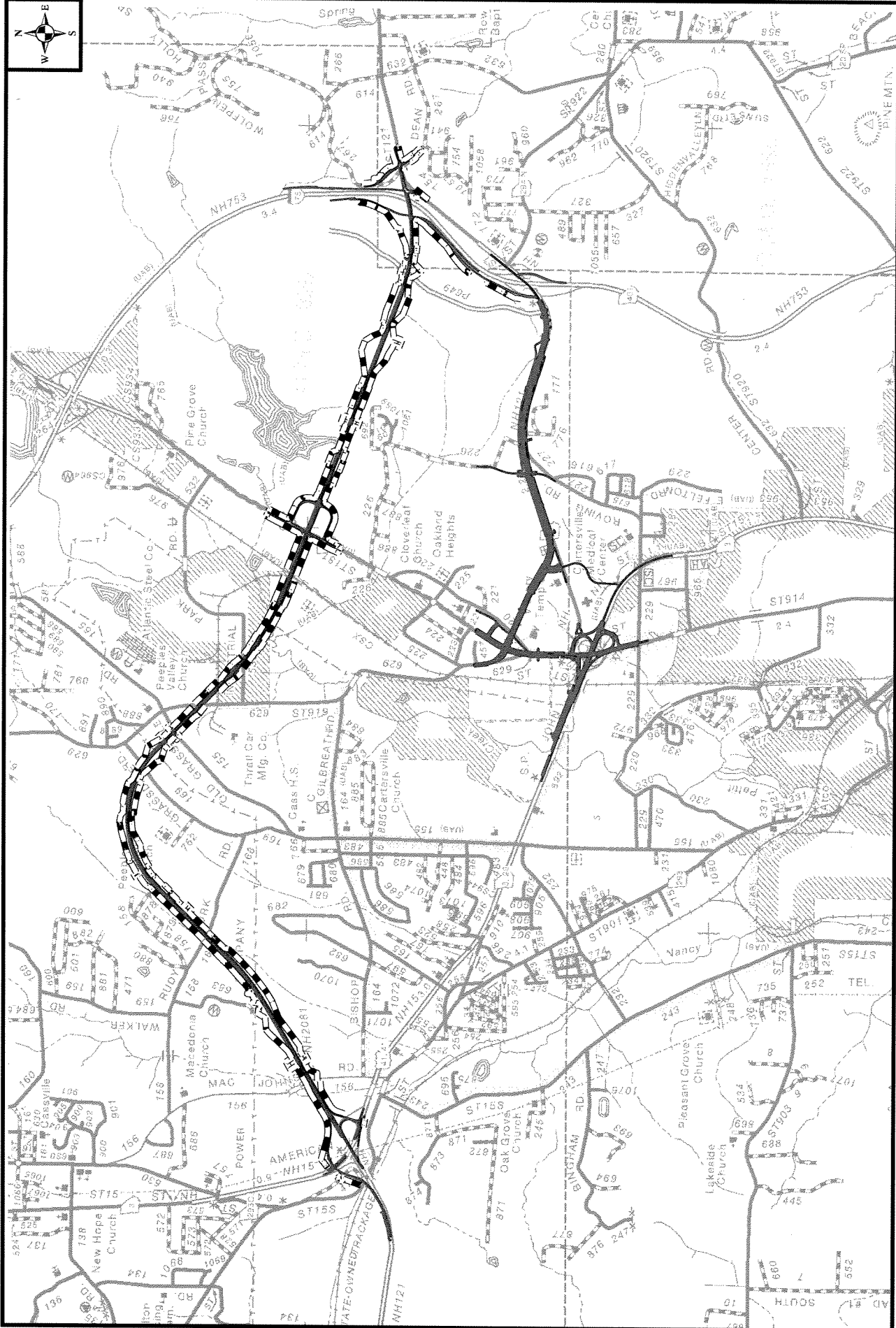
As a result of a recent Value Engineering study and ongoing design evaluations, there are several modifications that are being proposed in order to reduce the overall cost of the US 411 Connector project. These evaluations have reduced potential project cost estimates from approximately \$399 million for the original preferred alternative (later reduced to approx. \$341 million after further design, using more refined quantities and unit prices) to less than \$200 million for the modified preferred alternative. The following list represents the modifications determined to be feasible from an engineering perspective while not causing an adverse environmental impact, and have therefore been recommended for implementation:

- Reduce median width from 68-feet to 44-feet
- Reduce right-of-way (ROW) from 400-feet to 250-feet
- Use folded diamond interchange rather than full diamond interchange at SR 61
- Related reductions in bridges, retaining walls, drainage systems, paving, erosion control, traffic control, signing/ marking/signals, guardrail, and miscellaneous items
- Use a split diamond connection of US 411 to I-75, which retains a diamond ramp to SR 20 from the south
- More compact interchange at US 41
- Terminate Old Grassdale Road on each side of US 411
- Raise design profile, allow 7% grade to accommodate mountainous terrain
- Terminate Clifton Way south of US 411, and connect it to US 411 on north side with at grade intersection for gated access to the cell tower

Although some of the project details, including the interchange type and configurations and other construction and engineering details as identified above are being incorporated into the preferred alternative, the alignment of the proposed roadway has not changed from what was presented in the Final Supplemental Environmental Impact Statement (FSEIS). The modified Preferred Alternative is being referred to as *Alternative D-VE*, and is identified graphically on the next page.

**A. Project Need**

The purpose of the proposed connector is to provide a direct link between US 411 at its interchange with SR 3/US 41, west of Cartersville, and I-75. Traffic currently travels south on the combined route of SR 20/US 411 and SR 3/US 41 to the interchange with SR 61. Depending upon the intended travel direction on I-75 (south or north), there are currently two different routes that may be taken. Traffic traveling south on I-75 follows SR 20 after proceeding through the interchange with SR 61. Traffic to destinations accessed from north I-75 continues on SR 61/US 411.



Right of Way

Proposed Pavement

Future State Route 20



# Alternative D-VE



U.S. 411 Connector  
Bartow County  
EDS-500(5) - P.I. 661950



Both SR 20 and SR 3/US 41 are experiencing accident rates that are higher than the state average for this type of road. Although projects have been programmed to improve SR 20 and the SR 61 interchange, no additional capacity is planned for US 41. The new connector is needed to divert traffic away from the SR 3/US 41 corridor. The existing SR 3/US 41 facility has the capacity to meet local travel demands and provide access to commercial and residential development located in the US 41 corridor, assuming through traffic volumes are provided an alternate route.

The construction of the US 411 Connector would provide a more direct connection to I-75 for through-traffic from western Bartow County as well as Floyd County and westward into Alabama. In addition, regional through-traffic would be separated from local traffic along the existing connection (US 411/US 41 and SR 20), substantially improving the safety and convenience of local access and circulation by reducing congestion in the corridor. The diversion of through truck traffic away from the existing connection would enhance the safety and operation of SR 20 and US 41/SR 3. The continued growth and economic vitality of Bartow and Floyd counties and the cities of Cartersville and Rome would be supported by the implementation of the US 411 Connector by improving access to the interstate system for both general and truck traffic. In addition, the City of Cartersville and surrounding areas of Bartow County would benefit from the congestion relief on the local road system provided by the US 411 Connector. The construction of the US 411 Connector is necessary to maintain the safe and efficient operation of the arterial roadway system in Bartow County.

## **B. Project History**

The Georgia Department of Transportation (GDOT), in consultation with other local, State, and Federal agencies, and in accordance with the requirements of the National Environmental Policy Act (NEPA), has evaluated the need to provide improved access to I-75 from the US 411 corridor. Based upon studies documented in the Supplemental Environmental Impact Statement (SEIS) about the need and purpose of the project and the associated impacts to the human, physical and natural environment with the proposed action, the *D Avoidance and Minimization* Alternative was identified as the Preferred Alternative.

The Preferred Alternative was identified through an extensive evaluation process, which examined a broad range of potential solutions for improving the interstate connectivity and improving mobility and safety in the corridor. Based on the extensive analysis conducted as part of the SEIS process, five build alternatives (with 5 variations) and the no-build alternative were identified and studied for the US 411 Connector project. The build alternatives determined to be reasonable included Alternatives A, AB, B, D, and D-Avoidance and Minimization Variation.

Many concepts were explored in detail before the five reasonable build alternatives were identified. A total of nine (9) build concepts, a no-build alternative, and transportation system management alternatives were considered. Of these alternatives, only the five listed above were determined to be reasonable. NEPA also requires that the No Build Alternative be considered; however, this alternative is not considered reasonable as it does not satisfy the project need and purpose. For the build alternatives, the “reasonable” determination was based on the factors that most distinguished the alternatives: achieving the purpose and need of the project, avoiding use of National Register of Historic Places (NRHP) historic sites, and minimizing both the number of displacements and the degree of community disruption.

## **Project Alternatives**

The specific Project Alternatives included in the FSEIS were developed using a two-step process designed to consider virtually every possible way to connect US 411 and I-75 within the study area. The first step of this process was to identify a complete set of connection “Concepts” that represent all the basic connection possibilities. These connections included the termini of all of the alternatives identified in the original EIS. A general analysis/evaluation was prepared for eight concepts that cover the entire geography of the study area. This analysis included a review of traffic data, engineering considerations, and environmental constraints. The set of eight Concepts and the analysis/evaluation were presented to the public; resource agencies including the US Environmental Protection Agency (EPA), US Fish and Wildlife Service (USFWS), US Army Corps of Engineers (USACE), and the Environmental Protection Division of the State of Georgia (EPD); the US 411 Citizens Advisory Committee; and various interest groups to obtain their input and preferences. As a result of stakeholder input, one additional concept was suggested for evaluation for a total of nine (9) concepts, which are described as follows:

Concept A: Improve the existing US 411 east to its I-75 connection.

Concept B: Extend US 411 east on new location to the existing I-75/SR 20 interchange.

Concept C: Extend US 411 east on new location to existing US 411 north, just north of SR 20/US 41. To access I-75, traffic would be required to continue on the existing road network, either using US 411/SR 61 north or US 411/SR 61 south and SR 20.

Concept D: Extend US 411 east on new location to a new I-75 interchange and connect to existing SR 20 east of I-75.

Concept E: Extend US 411 east on new location to a new I-75 interchange north of SR 20 (conceptually represents Alternative A-2, the Selected Alternative from the 1989 final EIS).

Concept F: Extend US 411 east and north on new location to the existing I-75/US 411 north interchange.

Concept F Modified: Extend US 411 north and east on new location to a new I-75 interchange north of existing I-75/US 411 north interchange.

Concept G: Extend US 411 north and east on new location to a new I-75 interchange north of existing I-75/US 411 north interchange (conceptually represents one of the alternatives from the 1989 EIS listed as “no longer under consideration”, and known locally as the “Ridge Route”).

Concept H: Extend US 411 north and east on new location to the existing I-75/Cassville-White Road interchange.

## **Concept Evaluation**

Criteria were established to screen all concepts to identify those most suitable for development into reasonable alternatives. The concepts were developed and evaluated by comparing (1) what the concepts provide (i.e., how well the concepts meet the project need and purpose), and

(2) what the concepts cost, in terms of money, difficulty of construction, and environmental impact.

- Because of the increasing traffic needs in the project area as indicated in Section 1 of the FSEIS, the recommendations were based first on the extent to which each concept is expected to attract traffic to the new US 411 Connector and the extent to which each concept reduces traffic on the existing connection (US 41 and SR 20).
- Next, general engineering considerations were reviewed to identify significant impacts and fatal flaws that might erode or negate the identified advantages. Each concept alignment was evaluated for:
  - Constructability
  - Length of alignment in new right-of-way
  - Number of new and reconstructed interchanges
  - I-75 interchange spacing
- Next, environmental impacts were reviewed to identify significant impacts and fatal flaws that might erode or negate the identified advantages. Each concept alignment was evaluated to determine approximate impacts to three specific environmental areas including natural, cultural, and social resources. For this evaluation the resource areas are defined as follows:
  - Natural Resources: wetlands, streams and threatened/endangered species communities.
  - Cultural Resources: historic resources and districts listed in or determined eligible for the National Register of Historic Places.
  - Social Resources: low-income or minority populations and community facilities (churches, fire stations, schools).

In addition, a concept-level “economic viability indicator” (EVI) was developed to assist in the screening of the concepts. The EVI used for the concept evaluation process comprised an estimate of the total travel time savings associated with each concept (as compared to the No-Build) divided by a concept-level project cost estimate for each concept. An EVI value of 1.00 indicates that benefits equal costs; for EVIs greater than 1.00, benefits exceed cost, and for EVIs less than 1.00, cost exceed benefits. More details regarding the EVIs can be found in the Concepts Screening Report (CSR), which is on file at GDOT.

As the CSR reported, the results of the concept traffic analysis were quite clear: Concepts B and D attracted larger volumes of traffic and provide substantial relief to the existing US 411–I-75 connection (i.e., SR 3/US 41 and SR 20), while each of the other concepts on new location, including Concept F “Modified”, attracted significantly less traffic and provided no relief for the existing US 411–I-75 connection. Concept A, which utilizes the existing corridor, attracted a significant volume of traffic, but did not provide relief to the existing connection.

The results indicate that the more northerly concepts are not expected to attract traffic away from the local roadway network. The primary reason for the northerly concepts' inability to attract

traffic is twofold: (1) most of the traffic in the existing corridor currently is traveling to or from southerly destinations, and traffic forecasts indicate that this pattern will continue in the future, and (2) with the construction of programmed improvements on the existing corridor (i.e., the SR20 and US 41/SR 61 interchange improvements), and with increasing future traffic volumes and congestion on I-75, the existing corridor will provide a faster route to I-75 South than would the northerly US 411 Connector concepts. In other words, the northerly concepts did not provide a better route to where most traffic wants to go than does the existing corridor.

The regional traffic forecasting model used in this project, based on adopted population/employment forecasts and adopted transportation plans, forecasts heavier travel demand for destinations to and from the south. Origin-Destination surveys conducted at the time of the original EIS and again in January 2004 also indicated most travelers through the corridor had ultimate destinations south of the study area.

### **Alternatives Development**

In the second step of the process, the most attractive concepts identified (based on the Concept Analysis results), were developed into specific project alternatives. The identified set of project alternatives was considered to cover the full range of reasonable alternatives, and each project alternative was developed fully and analyzed completely as part of the EIS process. The Council of Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR §§1500-1508) requires that not only direct impacts, but indirect and cumulative impacts also be evaluated, which was incorporated into the overall alternatives evaluation process for the US 411 Connector project.

A brief description of the alternatives evaluated is presented below:

No Build Alternative - This alternative is one in which GDOT would take no action to construct the proposed project. All alternatives considered, including the No Build, assume that the Department's Construction Work Program, which includes the widening of SR 20 from 2 lanes to 4 lanes from SR 61 to I-75, would be completed.

TSM Alternative - The Transportation System Management alternative would consist of intersection improvements such as the addition of turn lanes, and the upgrade and coordination of traffic signals. No construction would occur on new alignment or outside of existing right-of-way.

TSM Capacity Alternative - The Transportation System Management Capacity alternative would include the widening of the existing US 41 facility from 4 lanes to 6 lanes and the widening of SR 20 to 6 lanes, and would also include intersection improvements such as addition of turn lanes, and upgrade and coordination of traffic signals. No construction would occur on new alignment or outside of the existing right-of-way.

Alternative A - Improve the existing US 411 – I-75 connection by (i) widening the existing facilities to six lanes, and (ii) constructing a bypass of the existing SR 61/US 41 Interchange.

Alternative AB - Provide a new US 411 – I-75 connection by (i) constructing a freeway in the existing SR 3/US 41 alignment (with frontage roads for local access), (ii) constructing a by-pass of the existing SR 61/US 41 Interchange, and (iii) constructing a freeway in a new alignment east of SR 61/US 411 that connects to I-75 at the existing SR 20/ I-75 Interchange.

Alternative AB Hybrid Variation - Provide a new US 411 – I-75 connection by (i) constructing a freeway in the existing SR 3/US 41 alignment (with frontage roads for local access), (ii) constructing a by-pass of the existing SR 61/US 41 Interchange, and (iii) widening the existing facilities of SR 20 to six lanes.

Alternative B - Provide a new US 411 – I-75 connection by constructing a freeway in a new alignment between the existing US 411/US 41 Interchange and the existing SR 20/I-75 Interchange.

Alternative B Minimization Variation - Provide a new US 411 – I-75 connection by constructing a freeway in a new alignment (modified Alternative B) between the existing US 411/US 41 Interchange and the existing SR 20/ I-75 Interchange.

Alternative B Avoidance Variation - Provide a new US 411 – I-75 connection by constructing a freeway in a new alignment between the existing US 411/US 41 Interchange and the existing SR 20/ I-75 Interchange that combines Alternative B/AB and D-Avoidance and Minimization Variation (below).

Alternative D - Provide a new US 411 – I-75 connection by constructing a freeway in a new alignment between the existing US 411/US 41 Interchange and existing SR 20 east of I-75, with a new interchange at I-75.

Alternative D-Avoidance and Minimization Variation - Provide a new US 411 – I-75 connection by constructing a freeway in a modified Alternative D alignment between the existing US 411/US 41 Interchange and existing SR 20 east of I-75, with a new interchange at I-75.

Alternative DA Variation - Provide a new US 411 – I-75 connection by constructing a freeway in a modified Alternative D alignment between the existing US 411/US 41 Interchange and existing SR 20 east of I-75, and widening SR 20 to 6 lanes.

Alternative DB Variation - Provide a new US 411 – I-75 connection by constructing a freeway in a modified Alternative D alignment between the existing US 411/US 41 Interchange and existing SR 61/US 411 west of I-75, with a new interchange at I-75.



### **Description of Original Preferred Alternative**

As noted above and described in the FSEIS, the Alternative D Avoidance/Minimization Variation was identified as the Preferred Alternative. This alternative was determined to meet the need and purpose of the proposed project while having the least overall amount of environmental impacts compared to the other alternatives considered. The Preferred Alternative is the only alternative that does not require the use of property from a NRHP eligible historic resource (and hence has no Section 4(f) involvement).

### **C. Preferred Alternative Modifications**

#### **Value Engineering**

Over the past several months GDOT has been continuing with preliminary design work and more refined construction cost estimates of the preferred alternative. Currently GDOT follows a policy that requires all projects with a cost of \$25 million or more to go through a value engineering process. Because it was estimated during the FSEIS process that the preferred alternative would cost approximately \$399 million (later reduced to approx. \$341 million after further design, using more refined quantities and unit prices), a Value Engineering (VE) study has been completed on the US 411 Connector project. The results of the study recommended a series of different modifications to the project in order to reduce the construction cost. The project modifications suggested by the VE study and combined with other related modifications from the preliminary design process are defined in the attached table. Each of these proposed modifications have been evaluated by GDOT and their consultants to determine the feasibility of implementing the modifications, especially from an operational and environmental perspective.

#### **Description of Modified Preferred Alternative**

As a result of the VE study and ongoing design efforts in order to reduce the cost of the US 411 Connector project, several changes noted in the table have been recommended. The alignment of the proposed roadway has not changed from what was presented in the FSEIS; however, some of the project details, including the interchange type and configurations and other construction and engineering details, are being incorporated into the preferred alternative, which is now being referred to as Alternative D-VE.

#### **Environmental Evaluation**

The project team has evaluated the proposed modifications that define Alternative D-VE, and in most cases the impacts to the environment are actually less than what was reported for the Alternative D Avoidance Minimization. The main reason for the reduced impact is because it is proposed to use a 44-foot median as compared to a 68-foot median, which would be constructed in a 250-foot right-of-way as compared to a 400-foot right-of-way. Other modifications include the more compact interchange configurations at US 41, SR 61, and at I-75. This reduced footprint also equates to a reduced direct impact to environmental resource areas. For example, the compact interchanges have reduced the limits of transition required to connect to the existing roadway network, which has eliminated impacts to both streams and wetlands that would no longer be crossed or filled. In addition, the narrower mainline roadway section would require a smaller area of fill to cross existing streams and wetlands, which reduces the overall impact to wetlands. However, the modified interchange configuration at I-75 would shift the southbound entrance ramp closer to I-75 over top of a previously impacted stream resulting in a greater impact to streams.

## Value Engineering (VE) and Related Design Recommendations

Potential Project Modification	Environmental Impact Change	Traffic Operations Change	Approx. Cost Savings Identified by VE Team
Terminate Clifton Way south of US 411, and connect it to US 411 on north side with at grade intersection	No Effect	Minor effect	\$3.3 million
Reduce right-of-way from 400-feet to 250-feet	Reduced impacts due to smaller construction footprint	No effect	\$1.1 million
Raise design profile, allow 7% grade to accommodate mountainous terrain; use 55 mph mainline design speed, 45 mph ramp design speed	No Effect	Reduced travel time	\$10.0 million
Reduce median width from 68-feet to 44-feet	Reduced impacts due to smaller construction footprint	No effect	\$5.1 million
Use folded diamond interchange rather than full diamond interchange at SR 61	Reduced impacts due to smaller construction footprint	Negligible effect	\$4.0 million
More compact interchange at US 41	Reduced impacts due to smaller construction footprint	Negligible effect	\$11.6 million
Terminate Old Grassdale Road on each side of US 411	No effect	Minor effect to local traffic	\$1.1 million
Use a split diamond connection of US 411 to I-75, which retains diamond ramps to SR 20 to and from the south	Reduced impacts due to smaller construction footprint <sup>1</sup>	Reduced travel time	\$41.4 million
<b>Other Related Modifications</b>			
Related reductions in bridges, retaining walls, drainage systems, paving, erosion control, traffic control, signing/ marking/signals, guardrail, and misc items; also includes reductions in ROW needed	Reduced impacts due to smaller construction footprint	No effect	\$83.4 million
<b>Final Cost Comparison</b>			
<b>Alternative D - Avoidance and Minimization (estimate)</b>			<b>\$341 million</b>
<b>Alternative D – VE (estimate)</b>			<b>\$180 million</b>
<b>Approximate Cost Savings</b>			<b>\$161 million</b>

<sup>1</sup> The smaller project footprint would minimize all impacts except for one impaired stream, which was previously relocated as a result of the original construction of I-75.

## Value Engineering (VE) Recommendations Not Implemented

Potential Project Modification	Environmental Impact Change	Traffic Operations Change	Potential Cost Savings Identified by VE Team
Eliminate interchange with SR 61 and replace with at grade intersections	No effect	Reduced travel time	\$4.1 million
Construct only half of US 411 between SR 61 and US 41	Reduced impacts due to smaller construction footprint	Major adverse effect	\$28.5 million
Modify bridges over roads and railroads to use more fill, which reduces bridge deck area	No effect	No effect	\$4.3 million
Eliminate part of Noise Wall No. 1	Increased noise impacts	No effect	\$1.2 million
Use a split diamond connection of US 411 to I-75, which includes free flow access from I-75 NB	Negligible effect	Negligible effect	\$10.2 million

# Georgia Department of Transportation

## Public Information Open House Comment Card

### US 411 Connector

Project EDS-500(5), Bartow County, P.I. NO. 661950

February 12, 2008

*Please print responses.*

Name \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Do you support the project ☐ For ☐ Against ☐ Conditional ☐ Uncommitted

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

How did you hear about this meeting? ☐ Radio ☐ Newspaper ☐ Signs ☐ Word of Mouth

Was the location of the meeting convenient for you to attend? ☐ Yes ☐ No

If no, please suggest a general location that is more convenient to your community.

\_\_\_\_\_

Was the time of the meeting convenient for you to attend? ☐ Yes ☐ No

If no, please suggest a time frame that is more convenient for you. \_\_\_\_\_

Were your questions answered by the DOT personnel? ☐ Yes ☐ No

Do you understand the project after attending this meeting? ☐ Yes ☐ No

Please share your suggestions on improving the way Georgia DOT conducts public meetings?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

#### Mail To:

Mr. Glenn Bowman, P.E., State Environmental/Location Engineer

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